There is no described provision to actively update or modify fan speed (an environmental setting) by either local or remote means. Thus, the Ote reference is directed to a system that monitors system status but does not update environmental settings.

Further, the Examiner maintains that Ote teaches the claimed limitation of sending an update signal from the microcontroller to the first computer thereby updating the system status. Whereas Ote, as suggested by the Examiner, refers to the first computer's electronic operational status such as the operating system, disk drives and drivers, and power supply systems (*see* Ote, Figure 1A), the system status that can be updated is limited. Ote is limited to updating power on, power off, (Ote, Col. 3, lines 29-38) and reset (Ote, Col. 9, lines 39-44).

Applicant's amended Claim 33 relates to a method of updating a system environmental setting for a computer from a remote computer. The environmental settings that can be updated include, but are not limited to, temperature and fan speed but do not include power on, power off, or reset. *See* p. 9, lines 11-12 of the patent specification. An example of updating a system environmental setting is shown in Exhibit F, p. 1, Wire Service Hardware Block Diagram. A command is issued from a remote second computer and routed through a modem connected to a modem and a remote interface at the first computer. This remote interface sends the command into the first computer. The command is executed on a microcontroller in the first computer, sending an update environmental setting signal from the microcontroller to the first computer thereby updating an environmental setting, such as a fan speed, through the fan speed control. *See also* p. 40, lines 3-6 and lines 11-15 of the patent specification.

Therefore, Applicant's invention updates environmental settings that do not include power on, power off, or reset, but rather environmental settings such as fan speed. Thus, Applicant's invention offers a novel solution to the problem of remotely updating the environmental setting of a computer.

Thus, Applicant respectfully submits that the Examiner's rejection of Claim 33 under 35 U.S.C. § 102(e) has been overcome. As amended, Claim 33 presents a novel approach to updating and modifying an environmental setting, not system status.

Discussion of the Claim rejections Under 35 U.S.C. § 103(a)

Claim 35 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Ote. However, Applicant respectfully disagrees with this rejection.

In rejecting Claim 35, the Examiner states that Ote teaches the claimed limitation of using a remote interface to connect a first computer and a second computer. The Examiner also based the rejection on the grounds that Ote teaches the claimed limitation of providing an updating system status command at the second computer directed to the first computer using a remote managing computer and a computer to be managed. *See* Ote, Figures 1, 23; col. 6-8. Applicant respectfully disagrees.

In Ote, Figures 1 and 23 show connecting a first computer and a second computer by showing a managing computer and a computer to be managed connected via a local area network (LAN). However, the figures do not describe or suggest a method to update or modify an environmental setting, such as a fan speed threshold, by a managing computer. The figures show no capability to update an environmental setting. Further, Ote, col. 7, lines 20-25, merely describes monitoring several status items (i.e., housing temperature, cooling fan status, or a power supply fault). There is no suggestion in the text regarding the capability to update an environmental setting. Thus, while Ote, does teach a method of connecting a first computer and a second computer, it does not teach a method of updating an environmental setting.

With respect to the amended Claim 35, Applicant's amended claim includes a method of updating an environmental setting for a computer. Applicant's Figures 12A and 12B describe the circuit block diagram for the microcontroller network bus connecting the Chassis Controller, System Recorder, Canister Card (Figure 12A) and CPU A controller, CPU B controller and the System Interface (Figure 12B). For example, the Canister Controller and CPU A Controller each have signal outputs for fan speed control. These output signals illustrate the capability of the system to send an update signal to change an environmental setting whereas the Examiner's cited reference does not.

Thus, there is no suggestion or motivation in Ote to one reasonably skilled in the art to actively update or modify the environmental settings of the first computer from a second remote computer via a remote interface. Thus, Applicant asserts the claimed method is non-obvious.

Further, the Examiner rejected Claim 35 based on "Official Notice" that the concept and advantages of encapsulating a command in communication protocol is notoriously well known in the data communication art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ote by encapsulating the command into a communication protocol.

However, Applicant respectfully traverses this rejection. According to the Manual of Patent Examining Procedure, if an applicant traverses a rejection based on the knowledge of one of ordinary skill in the art, the Examiner should cite a reference in support of his or her position. *See* M.P.E.P. § 2144.03. Applicant respectfully submits that the Examiner failed to cite a reference that taught the limitations of Claim 35. Applicant respectfully requests the Examiner to provide a reference in support of his position.

Discussion of Sufficiency of the 37 CFR § 1.131 Declaration

Claim 1 was rejected because the Examiner stated that Applicant's Exhibits A-G provided no description "[of] the remote interface, executing the command on the micro controller, and sending a retrieve or update system status signal from the micro controller to the first computer thereby retrieving or updating system status." Applicant respectfully disagrees.

As stated in the M.P.E.P. §715.07:

> "The essential thing to be shown under 37 FR 1.131 is priority of invention. This may be done by any satisfactory evidence of the fact... However, when reviewing a 37 CFR 1.131 affidavit or declaration, the examiner must consider all of the evidence presented in its entirety, including the affidavits or declarations and all accompanying exhibits, records and "notes." An accompanying exhibit need not support all claimed limitations, provided that any missing limitation is supported by the declaration itself. *Ex Parte Ovshinsky*, 10 USPQ2d 1075 (Bd. Pat. App. & Inter. 1989)."

Applicants were employed by a server developer and computer manufacturer and as is customary in the computer industry, documentation was written at various times during the development cycle. Documentary evidence at computer companies is typically in the form of white papers (concept), architecture documents, system and subsystem specifications, and schematic diagrams. An examination of the exhibits previously submitted in support of the Declaration shows that these are precisely the types of documents that one would expect to see arise from the engineering development of a computer. Table 1 lists the previously submitted exhibits.

TABLE 1

EXHIBIT	DOCUMENT NAME	DESCRIPTION
A	Raptor System: A Bird's Eye View	Server (first computer) system overview document (white paper)
B	Raptor Wire Service Architecture, Version 1.0	Document describing architecture of the maintenance and control microcontrollers
C	Schematic of Raptor Remote Board, Revision 01	Schematic (blueprint) of remote interface
D	Remote Interface Board Specification	Document describing architecture of remote interface
E	E-mail hardcopy	Shows that aspects of the invention continued to be developed
F	Raptor Wire Service Architecture, Version 1.3	New version of architecture document
G	Schematic of P6 Mother Board	Schematic (blueprint) of board containing several of the microcontrollers for the server
H	Schematic of Raptor Remote Board, Revision 54	Updated schematic for the remote interface

Exhibit A, "Raptor System, A Bird's Eye View," p. 9 (Nov. 2, 1995) outlines the various systems conditions Raptor (the first computer) was proposed to monitor.

Exhibit B, "Raptor Wire Service Architecture," p. 7-8 (January 23, 1996), describes the limitation of "sending a command for remotely retrieving or updating system status." Remotely retrieving or updating system status refers to the ability of a remotely located computer (second computer) to issue a command to the first computer via the remote interface link. These commands are either "Read" or "Write Event Message Requests." The "Read Event Message" commands the monitored computer (hereinafter "first computer") to allow the second computer to read the status associated with the microcontroller in the first computer. The data is displayed on the second computer. Thus, the second computer has sent a command to retrieve data about the first computer's system status.

Similarly, a "Write Event Message" from the second computer commands the first computer to allow the second computer to write (update) a new parameter, such as a fan speed threshold, to the first computer also via the microcontroller bus. Thus, the second computer sends

a command to update the first computer's system status. The architecture of the message requests describes whether the request is a "read" or a "write" message request and identifies the type of event contained within the message. Possible events covered by these messages are CPU status changes, power status changes, canister status changes, and fan status changes. Thus, system status of the first computer can be remotely retrieved or updated by an interface to a remote second computer using either a "read" or "write" event message.

Further, Claim 1 was rejected because the evidence, "as a whole contain[ed] no sketches, blueprints, notes records of meetings....etc." *See* Office Action, para. 4. Applicant respectfully disagrees. Exhibit F, p. 1 (October 3, 1996), is a block circuit diagram describing the Wire Service Hardware configuration. The Wire Service Hardware comprises a plurality of maintenance and control microcontrollers connected by a microcontroller bus (here called the Wire Service Bus). A block circuit diagram is a blueprint for an electrical circuit as it faithfully describes the components and connections of the circuit. The diagram illustrates how the System Recorder, Chassis Controller, CPU A Controller and CPU B Controller, the System Interface Controller and Remote Interface Controller directly or indirectly tie into the Wire Service Bus.

Exhibit F, p. 36, provides a description of the remote interface in the section entitled "Wire Service Remote Interface Serial Protocol." The interface is used to communicate commands and other messages across a serial link from a remote interface controller connected to the first computer to a remote management processor in the second computer. The remote interface controller encapsulates commands and messages in a transmission envelope for error free communications and link security. There are two classes of messages. The first class includes "Requests" sent by remote management systems (the second computer) to the remote interface and received at the first controller of the first computer. The second class includes "Responses" that are returned to the second computer through the remote interface. This provides the basis for remotely retrieving or updating system status.

Further, the Examiner rejected Claim 1 because the Exhibits did not provide a description of "executing the command on a microcontroller." Applicant respectfully disagrees. Exhibit F, p. 1 (October 3, 1996), is a block circuit diagram showing the Wire Service Hardware configuration. CPU A Controller and CPU B Controller are microcontrollers that may receive the retrieval or update system status commands in the first computer. The block diagram shows the input and output signal paths as well as the connection to the wire service bus. An incoming

command from the Remote Interface moving along the Wire Service Bus is monitored by CPU A Controller and CPU B Controller. A properly encoded command is therefore monitored by microcontroller CPU A or B, and if appropriate, executed. Thus, the Exhibit is sufficient to illustrate executing the command on a microcontroller in the first computer.

Further, the Examiner rejected Claim 1 because the Exhibits did not provide a description of "sending a retrieve or update system status signal from the microcontroller to the first computer thereby retrieving or updating the system status." Applicant respectfully disagrees. Exhibit F, p. 1 (October 3, 1996), is a block circuit diagram describing the Wire Service Hardware configuration. Fan speed monitoring and control are representative of the system status. When a read event message to retrieve fan speed is detected by CPU A microcontroller, the microcontroller monitors the Fan Mux data output in the first computer. The fan speed data is retrieved by CPU A microcontroller and reported back to the second computer. Thus, a retrieve system status signal is sent from the microcontroller to the first computer thereby retrieving the system status (e.g., fan speed). The data signal path is explicitly illustrated on the block diagram. Thus, Exhibit F describes a method of sending a retrieve system status signal from the microcontroller to the first computer thereby retrieving the system status.

Similarly, when a write update event message is received by CPU A microcontroller, the microcontroller may, for instance, activate a microcontroller output pin to transmit a signal along the Fan Speed Control path. This signal may change the fan speed, thereby modifying or updating the system state. The data signal path is explicitly shown on the block diagram. Thus, Exhibit F also describes a method of sending an update system status signal from the microcontroller to the first computer thereby updating the system status.

In reference to claim 7, Exhibits C and D address the claimed limitation of connecting a remote interface to a first computer and a second computer. Exhibit C, a schematic diagram of the remote interface board, illustrates the electrical connection to link the remote interface with a communications line to the second computer. Exhibit C also illustrates the SCL and SDA circuit paths connecting the remote interface board to the first computer via the RJ45 connector.

Exhibit D, the Remote Interface Board Specification, Rev. 2, fig. 2, illustrates the physical embodiment of the connectors referred to in Exhibit C. Further, Exhibit D, fig. 3 illustrates the enclosure design that physically connects the remote interface to the first and second computer.

Further, Exhibit F, p. 36 also addresses the claimed limitation of encapsulating the command in a communications protocol and transmitting the encapsulated command to the remote interface. The Wire Service Remote Serial protocol is used to communicate Wire Service commands and messages across a serial link from the second computer to the Wire Service Remote Interface. The protocol encapsulates Wire Service messages in a transmission envelope for error free communication and link security.

In reference to Claim 14, Exhibits A, B, and F address the limitations not discussed above. Exhibit A, p. 8, describes a system to supervise and control specific functions of the first computer through a Control Diagnostic and Monitor (CDM) subsystem implemented by distributed CDM microprocessors connected to a I^2C serial bus (CDM bus). The CDM can supervise and manage selected functions externally from a remote second computer via the CDM bus and communication lines. The computer environment is externally managed through the following process: a management operation to be performed by the first computer is selected at the second computer. The second computer communicates with the first computer by issuing a command or message instruction for a selected component at the first computer and a selected operation to be performed at the first computer.

The first computer after receiving the command or message, communicates with the computer's microcontroller via its local CDM bus as described and illustrated in Exhibit F, p. 1. The first computer's microcontroller instructs the first computer to perform the command on the selected component. The first computer then executes the command and performs the selected operation on the selected component. Thus the first and second computers communicate with each other so that the first computer can perform the selected operation on the selected component. The CDM supervised and monitored functions of computer environmental parameters include ambient and exhaust temperatures, fan speed, speed control fan fault and overtemp indicators.

The first and second computers communicate using the command and messaging techniques described in Exhibit B, p. 7-8, and Exhibit F, p. 36 (see above).

Conclusion

Applicant has endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. In light of the above amendments and remarks, reconsideration and

withdrawal of the outstanding rejections is respectfully requested. If the Examiner has any questions, which may be answered by telephone, the Examiner is invited to call the undersigned directly.

Respectfully submitted,

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Dated: 9/22/99

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